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<211> 318
<212> PRT
<213> Homo sapiens
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Pro Gly Leu Glu Tyr Leu Ser Gln Ile Asp Gln Ile Leu Ile His Gln
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Gln Ile Glu Leu Leu Glu Val Leu Thr Gly Phe Glu Thr Asn Asn Lys
115 120 125

Tyr Glu Ile Lys Asn Ser Phe Gly Gln Arg Val Tyr Phe Ala Ala Glu
130 135 140

Asp Thr Asp Cys Cys Thr Arg Asn Cys Cys Gly Pro Ser Arg Pro Phe
145 150 155 160

Thr Leu Arg Ile Ile Asp Asn Met Gly Gln Glu Val Ile Thr Leu Glu
165 170 175

Arg Pro Leu Arg Cys Ser Ser Cys Cys Cys Pro Cys Cys Leu Gln Glu
180 185 190

Ile Glu Ile Gln Ala Pro Pro Gly Val Pro Ile Gly Tyr Val Ile Gln
195 200 205

Thr Trp His Pro Cys Leu Pro Lys Phe Thr Ile Gln Asn Glu Lys Arg
210 215 220

Glu Asp Val Leu Lys Ile Ser Gly Pro Cys Val Val Cys Ser Cys Cys
225 230 235 240

Gly Asp Val Asp Phe Glu Ile Lys Ser Leu Asp Glu Gln Cys Val Val
245 250 255

Gly Lys Ile Ser Lys His Trp Thr Gly Ile Leu Arg Glu Ala Phe Thr
260 265 270

Asp Ala Asp Asn Phe Gly Ile Gln Phe Pro Leu Asp Leu Asp Val Lys
275 280 285

Met Lys Ala Val Met Ile Gly Ala Cys Phe Leu Ile Asp Phe Met Phe
290 295 300

Phe Glu Ser Thr Gly Ser Gln Glu Gln Lys Ser Gly Val Trp
305 310 315

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<212> DNA

<213> Homo sapiens

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 attgc 1265

<210> 4
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 <212> PRT
 <213> Homo sapiens

<400> 4

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 Leu Ser Gln Ile Asp Met Ile Leu Ile His Gln Gln Ile Glu Leu Leu
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 Glu Val Leu Phe Ser Phe Glu Ser Ser Asn Met Tyr Glu Ile Lys Asn
 35 40 45
 Ser Phe Gly Gln Arg Ile Tyr Phe Ala Ala Glu Asp Thr Asn Phe Cys
 50 55 60
 Ile Arg Asn Cys Cys Gly Arg Ser Arg Pro Phe Thr Leu Arg Ile Thr
 65 70 75 80
 Asp Asn Val Gly Arg Glu Val Ile Thr Leu Glu Arg Pro Leu Arg Cys
 85 90 95
 Asn Cys Cys Cys Cys Pro Cys Cys Leu Gln Glu Ile Glu Ile Gln Ala
 100 105 110
 Pro Pro Gly Val Pro Val Gly Tyr Val Thr Gln Thr Trp His Pro Cys

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115	120	125
Leu Thr Lys Phe Thr Ile Lys Asn Gln Lys Arg Glu Asp Val Leu Lys 130 135 140		
Ile Ser Gly Pro Cys Ile Val Cys Ser Cys Ile Ala Gly Val Asp Phe 145 150 155 160		
Glu Ile Thr Ser Leu Asp Glu Gln Ile Val Val Gly Arg Ile Ser Lys 165 170 175		
His Trp Ser Gly Phe Leu Arg Glu Ala Phe Thr Asp Ala Asp Asn Phe 180 185 190		
Gly Ile Gln Phe Pro Arg Asp Leu Asp Val Lys Met Lys Ala Val Met 195 200 205		
Ile Gly Ala Cys Phe Leu Ile Asp Tyr Met Phe Phe Glu Arg Thr Arg 210 215 220		

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 <212> DNA
 <213> Homo sapiens

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<210> 6
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 <212> PRT
 <213> Homo sapiens

<400> 6

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 Pro Gly Gln Ala Pro Val Pro Ala Gln Val Pro Ala Pro Ala Pro Gly
 35 40 45
 Phe Ala Leu Phe Pro Ser Pro Gly Pro Val Ala Leu Gly Ser Ala Ala
 50 55 60
 Pro Phe Leu Pro Leu Pro Gly Val Pro Ser Gly Leu Glu Phe Leu Val
 65 70 75 80
 Gln Ile Asp Gln Ile Leu Ile His Gln Lys Ala Glu Arg Val Glu Thr
 85 90 95
 Phe Leu Gly Trp Glu Thr Cys Asn Arg Tyr Glu Leu Arg Ser Gly Ala
 100 105 110
 Gly Gln Pro Leu Gly Gln Ala Ala Glu Glu Ser Asn Cys Cys Ala Arg
 115 120 125
 Leu Cys Cys Gly Ala Arg Arg Pro Leu Arg Val Arg Leu Ala Asp Pro
 130 135 140
 Gly Asp Arg Glu Val Leu Arg Leu Leu Arg Pro Leu His Cys Gly Cys
 145 150 155 160
 Ser Cys Cys Pro Cys Gly Leu Gln Glu Met Glu Val Gln Ala Pro Pro
 165 170 175

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Gly Thr Thr Ile Gly His Val Leu Gln Thr Trp His Pro Phe Leu Pro
 180 185 190
 Lys Phe Ser Ile Gln Asp Ala Asp Arg Gln Thr Val Leu Arg Val Val
 195 200 205
 Gly Pro Cys Trp Thr Cys Gly Cys Gly Thr Asp Thr Asn Phe Glu Val
 210 215 220
 Lys Thr Arg Asp Glu Ser Arg Ser Val Gly Arg Ile Ser Lys Gln Trp
 225 230 235 240
 Gly Gly Leu Val Arg Glu Ala Leu Thr Asp Ala Asp Asp Phe Gly Leu
 245 250 255
 Gln Phe Pro Leu Asp Leu Asp Val Arg Val Lys Ala Val Leu Leu Gly
 260 265 270
 Ala Thr Phe Leu Ile Asp Tyr Met Phe Phe Glu Lys Arg Gly Gly Ala
 275 280 285
 Gly Pro Ser Ala Ile Thr Ser
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 <212> DNA
 <213> Homo sapiens

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<210> 8
 <211> 329
 <212> PRT
 <213> Homo sapiens

<400> 8

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Glu Asn Gln Thr Lys Pro Pro Asp Pro Arg Pro Asp Ala Pro Pro Glu
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Tyr Ser Ser His Phe Leu Pro Gly Pro Pro Gly Thr Ala Val Pro Pro
35 40 45

Pro Thr Gly Tyr Pro Gly Gly Leu Pro Met Gly Tyr Tyr Ser Pro Gln
50 55 60

Gln Pro Ser Thr Phe Pro Leu Tyr Gln Pro Val Gly Gly Ile His Pro
65 70 75 80

Val Arg Tyr Gln Pro Gly Lys Tyr Pro Met Pro Asn Gln Ser Val Pro
85 90 95

Ile Thr Trp Met Pro Gly Pro Thr Pro Met Ala Asn Cys Pro Pro Gly
100 105 110

Leu Glu Tyr Leu Val Gln Leu Asp Asn Ile His Val Leu Gln His Phe
115 120 125

Glu Pro Leu Glu Met Met Thr Cys Phe Glu Thr Asn Asn Arg Tyr Asp
130 135 140

Ile Lys Asn Asn Ser Asp Gln Met Val Tyr Val Val Thr Glu Asp Thr
145 150 155 160

Asp Asp Phe Thr Arg Asn Ala Tyr Arg Thr Leu Arg Pro Phe Val Leu
165 170 175

Arg Val Thr Asp Cys Met Gly Arg Glu Ile Met Thr Met Gln Arg Pro
180 185 190

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Phe Arg Cys Thr Cys Cys Cys Phe Cys Cys Pro Ser Ala Arg Gln Glu
 195 200 205
 Leu Glu Val Gln Cys Pro Pro Gly Val Thr Ile Gly Phe Val Ala Glu
 210 215 220
 His Trp Asn Leu Cys Arg Ala Val Tyr Ser Ile Gln Asn Glu Lys Lys
 225 230 235 240
 Glu Asn Val Met Arg Val Arg Gly Pro Cys Ser Thr Tyr Gly Cys Gly
 245 250 255
 Ser Asp Ser Val Phe Glu Val Lys Ser Leu Asp Gly Ile Ser Asn Ile
 260 265 270
 Gly Ser Ile Ile Arg Lys Trp Asn Gly Leu Leu Ser Ala Met Ala Asp
 275 280 285
 Ala Asp His Phe Asp Ile His Phe Pro Leu Asp Leu Asp Val Lys Met
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 <212> DNA
 <213> Mus musculus

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<210> 10
<211> 328
<212> PRT
<213> Mus musculus

<400> 10

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Met Pro Ala Gly Tyr Pro Pro Pro Tyr Pro Pro Ala Ala Phe Gln Gly
20 25 30

Pro Ser Asp His Ala Ala Tyr Pro Ile Pro Gln Ala Gly Tyr Gln Gly
35 40 45

Pro Pro Gly Pro Tyr Pro Gly Pro Gln Pro Gly Tyr Pro Val Pro Pro
50 55 60

Gly Gly Tyr Ala Gly Gly Gly Pro Ser Gly Phe Pro Val Gln Asn Gln
65 70 75 80

Pro Ala Tyr Asn His Pro Gly Gly Pro Gly Gly Thr Pro Trp Met Pro
85 90 95

Ala Pro Pro Pro Pro Leu Asn Cys Pro Pro Gly Leu Glu Tyr Leu Ala
100 105 110

Gln Ile Asp Gln Leu Leu Val His Gln Gln Ile Glu Leu Leu Glu Val
115 120 125

Leu Thr Gly Phe Glu Thr Asn Asn Lys Tyr Glu Ile Lys Asn Ser Leu
130 135 140

Gly Gln Arg Val Tyr Phe Ala Val Glu Asp Thr Asp Cys Cys Thr Arg
145 150 155 160

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Asn Cys Cys Gly Ala Ser Arg Pro Phe Thr Leu Arg Ile Leu Asp Asn
 165 170 175
 Leu Gly Arg Glu Val Met Thr Leu Glu Arg Pro Leu Arg Cys Ser Ser
 180 185 190
 Cys Cys Phe Pro Cys Cys Leu Gln Glu Ile Glu Ile Gln Ala Pro Pro
 195 200 205
 Gly Val Pro Val Gly Tyr Val Thr Gln Thr Trp His Pro Cys Leu Pro
 210 215 220
 Lys Phe Thr Leu Gln Asn Glu Lys Lys Gln Asp Val Leu Lys Val Val
 225 230 235 240
 Gly Pro Cys Val Val Cys Ser Cys Cys Ser Asp Ile Asp Phe Glu Leu
 245 250 255
 Lys Ser Leu Asp Glu Glu Ser Val Val Gly Lys Ile Ser Lys Gln Trp
 260 265 270
 Ser Gly Phe Val Arg Glu Ala Phe Thr Asp Ala Asp Asn Phe Gly Ile
 275 280 285
 Gln Phe Pro Leu Asp Leu Asp Val Lys Met Lys Ala Val Met Leu Gly
 290 295 300
 Ala Cys Phe Leu Ile Asp Phe Met Phe Phe Glu Arg Thr Gly Asn Glu
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 Glu Gln Arg Ser Gly Ala Trp Gln
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<210> 11
 <211> 1622
 <212> DNA
 <213> Mus musculus

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<210> 12
 <211> 307
 <212> PRT
 <213> Mus musculus

<400> 12

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 35 40 45
 Pro Gln Ala Ser Tyr Thr Val Ser Thr Ser Gly His Glu Gly Tyr Ala
 50 55 60
 Ala Thr Arg Leu Pro Ile Gln Asn Asn Gln Thr Ile Val Leu Ala Asn
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 Thr Gln Trp Met Pro Ala Pro Pro Pro Ile Leu Asn Cys Pro Pro Gly
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Leu Glu Tyr Leu Asn Gln Ile Asp Gln Leu Leu Ile His Gln Gln Val
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 Glu Leu Leu Glu Val Leu Thr Gly Phe Glu Thr Asn Asn Lys Phe Glu
 115 120 125
 Ile Lys Asn Ser Leu Gly Gln Met Val Tyr Val Ala Val Glu Asp Thr
 130 135 140
 Asp Cys Cys Thr Arg Asn Cys Cys Glu Ala Ser Arg Pro Phe Thr Leu
 145 150 155 160
 Arg Ile Leu Asp His Leu Gly Gln Glu Val Met Thr Leu Glu Arg Pro
 165 170 175
 Leu Arg Cys Ser Ser Cys Cys Phe Pro Cys Cys Leu Gln Glu Ile Glu
 180 185 190
 Ile Gln Ala Pro Pro Gly Val Pro Ile Gly Tyr Val Thr Gln Thr Trp
 195 200 205
 His Pro Cys Leu Pro Lys Leu Thr Leu Gln Asn Asp Lys Arg Glu Asn
 210 215 220
 Val Leu Lys Val Val Gly Pro Cys Val Ala Cys Thr Cys Cys Ser Asp
 225 230 235 240
 Ile Asp Phe Glu Ile Lys Ser Leu Asp Glu Val Thr Arg Ile Gly Lys
 245 250 255
 Ile Thr Lys Gln Trp Ser Gly Cys Val Lys Glu Ala Phe Thr Asp Ser
 260 265 270
 Asp Asn Phe Gly Ile Gln Phe Pro Leu Asp Leu Glu Val Lys Met Lys
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<210> 13
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<210> 14
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 <212> PRT
 <213> Mus musculus

<400> 14

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Pro Tyr Pro Val Pro Ser Gly Tyr Pro Glu Pro Val Ala Leu His Pro
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Gly Pro Gly Gln Ala Pro Val Pro Thr Gln Val Pro Ala Pro Ala Pro
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<223> n is any nucleotide
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 tcacgttgat agtgaaagtc agaatgcttc atatttctgt gctccataact tcagtgttca 2040
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<210> 16
 <211> 170
 <212> PRT
 <213> Mus musculus

<400> 16

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 35 40 45
 Leu Glu Val Gln Cys Pro Pro Gly Val Thr Ile Gly Phe Val Ala Glu
 50 55 60
 His Trp Asn Leu Cys Arg Ala Ser Tyr Ser Ile Gln Asn Glu Lys Lys
 65 70 75 80
 Glu Ser Met Met Arg Val Arg Gly Pro Cys Ala Thr Tyr Gly Cys Gly
 85 90 95
 Ser Asp Ser Val Phe Glu Ile Asn Ser Leu Asp Gly Val Ser Asn Ile
 100 105 110
 Gly Ser Ile Ile Arg Lys Trp Asn Gly Phe Leu Ser Thr Met Val Asn
 115 120 125
 Ala Asp His Phe Glu Ile Arg Phe Pro Leu Ala Leu Asp Val Lys Met
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 Lys Ala Met Ile Phe Gly Ser Cys Phe Leu Ile Asp Phe Met Tyr Phe
 145 150 155 160
 Glu Arg Pro Pro Pro Arg Arg Met Ser Arg
 165 170

<210> 17
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 17
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 aaccgtgttg tgtacgtaag attcaggaag 210

<210> 18
 <211> 25
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Forward primer for PCR

<400> 18
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<210> 19
 <211> 26
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Reverse primer for PCR

<400> 19
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<210> 20
 <211> 23
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Forward primer for PCR

<400> 20
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<210> 21
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Reverse primer for PCR

<400> 21
 aaagctgata tgcctgtgtg cc 22

<210> 22
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<220>

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<223> T7 promoter sequence contained in reverse primer

<400> 22

aatttaatac gactcactat aggg

24

<210> 23

<211> 14

<212> DNA

<213> Artificial sequence

<220>

<223> HuPLSCR1 GC box

<400> 23

taggggaggg gcct

14

<210> 24

<211> 14

<212> DNA

<213> Artificial sequence

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<223> HuPLSCR1 GC box

<400> 24

aggaggtggg cgca

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<210> 25

<211> 11

<212> DNA

<213> Artificial sequence

<220>

<223> HuPLSCR1 CCAAT box

<400> 25

tctctccaat g

11

<210> 26

<211> 16

<212> DNA

<213> Artificial sequence

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<223> Human Scramblase Splice donor site 1

<400> 26

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16

<210> 27

<211> 16

<212> DNA

<213> Artificial sequence

<220>

<223> Human Scramblase Splice acceptor site 1

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<400> 27
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16

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<220>
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<400> 28
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<210> 29
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<220>
<223> Human Scramblase Splice acceptor site 2

<400> 29
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<210> 30
<211> 16
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<220>
<223> Human Scramblase Splice donor site 3

<400> 30
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<210> 31
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<212> DNA
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<220>
<223> Human Scramblase Splice acceptor site 3

<400> 31
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<210> 32
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<220>
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16

<220>
<223> Human Scramblase Splice acceptor site 4

16

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<220>
<223> Human Scramblase Splice donor site 5
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16

<220>
<223> Human Scramblase Splice acceptor site 5

16

<220>
<223> Human Scramblase Splice donor site 6

16

<220>
<223> Human Scramblase Splice acceptor site 6

<400> 37

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16

<210> 38
 <211> 16
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Human Scramblase Splice donor site 7

<400> 38
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16

<210> 39
 <211> 16
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Human Scramblase Splice acceptor site 7

<400> 39
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16

<210> 40
 <211> 16
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Human Scramblase Splice donor site 8

<400> 40
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16

<210> 41
 <211> 16
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Human Scramblase Splice acceptor site 8

<400> 41
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16

<210> 42
 <211> 13
 <212> DNA
 <213> Homo sapiens

<400> 42
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13

<210> 43

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<211> 13
<212> DNA
<213> Homo sapiens

<400> 43
acaaaaagaa agc

13

<210> 44
<211> 13
<212> DNA
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<400> 44
aaaaacagaa acc

13

<210> 45
<211> 13
<212> DNA
<213> Homo sapiens

<400> 45
ggaaaaggaa acc

13

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